

22. A computer-implemented method for managing available-to-promise (ATP) data, comprising:

receiving at least one component ATP request, each component ATP request corresponding to an ATP request line-item for a desired product;

5 retrieving from a local database at least a portion of product availability information associated with the desired product for each component ATP request;

determining an ATP response for each component ATP request using the retrieved product availability information;

10 generating a component quotation for each component ATP request according to the corresponding ATP response; and

communicating the component quotation for consolidation with other component quotations.

23. The method of Claim 22, further comprising:

15 receiving at least one component quotation confirmation, each component quotation confirmation corresponding to a particular quotation line-item accepted at a client;

determining a promise response for each component quotation confirmation using at least a portion of the product availability information in the database;

20 generating a component promise for each component quotation confirmation according to the corresponding promise response, the component promise representing a commitment of product availability for the corresponding accepted product; and

25 communicating the component promise for consolidation with other component promises.

24. The method of Claim 23, further comprising:

receiving a component request cancellation associated with a component ATP request or a component promise;

30 updating the product availability information associated with the desired product in the database; and

generating a component cancellation confirmation for communication.

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25. The method of Claim 23, further comprising:
receiving a component acceptance corresponding to a particular promise line-item accepted at the client;

5 recording the component acceptance in the database; and
generating a component acceptance confirmation for communication.

26. The method of Claim 23, further comprising:
identifying a planning change that affects a component promise;
generating a planning change notification for communication;

10 receiving at least one revised component ATP request; and
processing the revised component ATP request to generate one or more revised component quotations.

27. The method of Claim 22, wherein determining the ATP response for
15 one of the component ATP requests comprises:

searching the retrieved product availability information, in reverse chronological order starting at a requested ship date, for a requested quantity of the desired product;
determining whether the total requested quantity is available between the
20 requested ship date and a lower bound of a date range;

searching the retrieved product availability information, in chronological order starting at the requested ship date, for the remaining requested quantity when the total requested quantity is not available between the requested ship date and the lower bound of the date range; and
25 determining whether the total requested quantity is available between the lower bound and an upper bound of the date range.

28. The method of Claim 22, wherein:
the component ATP requests correspond to individual items; and
30 generating the component quotations comprises generating component quotations that include information and rules regarding how the component quotations may be mutated.

29. The method of Claim 22, further comprising:
receiving a sequence of component ATP requests, one or more first component ATP requests in the sequence targeted to a first fulfillment management system;
5 processing the first component ATP requests targeted for the first fulfillment management system to generate one or more resulting component quotations; and
communicating the resulting component quotations, along with remaining component ATP requests in the sequence, to a second fulfillment management system targeted by one or more second component ATP requests in the sequence.
- 10 30. The method of Claim 22, further comprising generating component quotations or component promises on a per product basis based upon allocations throughout a seller hierarchy for a subset of products, the seller hierarchy and the subset of products supported by a fulfillment server.
- 15 31. The method of Claim 22, further comprising generating component quotations or component promises based upon allocations for a subset of products throughout a hierarchy of related products, the subset of products in the hierarchy of related products supported by a fulfillment server.
- 20 32. The method of Claim 22, further comprising generating an availability of generics of a product by communicating component ATP requests to a fulfillment management system that corresponds to the generic products.
- 25 33. The method of Claim 22, further comprising:
holding allocations of supply for a seller within a seller hierarchy that is supported by a fulfillment server;
generating all component quotations or component promises possible with the allocations; and
30 communicating the component quotations or component promises for combination, for each product, as if the ATP request had been quoted or promised by a single system having all the allocations.